

Title (en)

FAULT LOCATION METHOD FOR A PARALLEL TWO-CIRCUIT TRANSMISSION LINE WITH N TERMINALS

Publication

**EP 0459522 A3 19920930 (EN)**

Application

**EP 91108973 A 19910531**

Priority

- JP 14382490 A 19900531
- JP 14382590 A 19900531

Abstract (en)

[origin: EP0459522A2] A method of locating a fault point in a parallel two-circuit transmission line in an n-terminal system. When a single fault occurs at one place in one circuit of the transmission line and when a multiple fault occurs at the same place in the two circuits, a distance to the fault may be calculated by the method of this invention. The method comprises the steps of transforming the transmission line into a T three-terminal parallel two-circuit transmission line circuit having three branches, calculating a value representing a length of one of the three branches on the basis of differential currents flowing into the branch points of the transmission line, determining if that value represents the distance from a terminal connected to the branch point to the fault point, employing the value as the distance to the fault point if the value represents such a distance, repeating the value calculation and determination for the other two branches if the value does not represent the distance to the fault, determining a next branch point for which to perform equivalent transformation with respect to, and repeating the previous steps until the fault is found.

IPC 1-7

**H02H 7/26**

IPC 8 full level

**H02H 7/26** (2006.01)

CPC (source: EP US)

**H02H 7/267** (2013.01 - EP US)

Citation (search report)

- [AD] PATENT ABSTRACTS OF JAPAN vol. 14, no. 162 (P-1029)29 March 1990 & JP-A-02 019 779 ( NISSIN ELECTRIC CO ) 23 January 1990
- [AD] PATENT ABSTRACTS OF JAPAN vol. 14, no. 402 (P-1099)30 August 1990 & JP-A-02 154 168 ( KANSAI ELECTRIC POWER CO ) 13 June 1990
- [A] SOVIET INVENTIONS ILLUSTRATED Section EI, Week 8640, 16 October 1986 Derwent Publications Ltd., London, GB; Class S, & SU-A-1 218 354 (SOYUZTEKHENERGO) 15 March 1986
- [A] SOVIET INVENTIONS ILLUSTRATED Section EI, Week 9007, 28 March 1990 Derwent Publications Ltd., London, GB; Class S, & SU-A-1 476 411 (SOYUZTEKHENERGO) 30 April 1989
- [A] SOVIET INVENTIONS ILLUSTRATED Section EI, Week 7517, Derwent Publications Ltd., London, GB; Class S, & SU-A-434 340 (AIZENFELD) 31 October 1974

Cited by

CN108776284A; CN110988604A; CN109103852A; CN104849617A; CN110609207A; CN113671314A; CN103199507A; CN104849616A

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